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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/662,756 | 09/15/2000 | MANABU OHGA | 35.C14795 | 3508 |

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| EXAMINER | |
|---|---|
| NGUYEN, MADELEINE ANH VINH | |
| ART UNIT | PAPER NUMBER |
| 2626 | |

DATE MAILED: 10/07/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/662,756 | OHGA, MANABU | |
| | Examiner | Art Unit | |
| | Madeleine AV Nguyen | 2626 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) 1-15 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-15 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5-7.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Myers et al (US Patent No. 5,909,291).

Concerning claim 8, Myers et al discloses an image processing apparatus (Fig.8) comprising input means (102) for inputting a color image signal; correction means (software program for out-of-gamut correction in 106) for correcting the color image signal; judgment means (device profiles in 107) for judging whether or not the input color image signal represent achromatic color and control means (100) for controlling the correction according to the judged result by the judgment means (Figs.2, 9; col. 5, line 63 – col. 6, line 53).

Myers does not directly teach that the correction of the color image signal is according to an observation condition. However, Myers teaches in the Background of the Invention the matching or not matching of a plurality of set of conditions of the input and output devices (col. 1, line 64 – col. 2, line 12). Myers further teaches a profile store 22 which stores the profiles of the source devices and the destination devices used in the matching algorithm. If the conditions of the source devices and the destination devices are judged not match each other, a correction according to the judged result is done (Fig.2; col. 4, lines 1-30; col. 6, lines 19-53). It would have been obvious to one skilled in the art at the time the invention was made to modify the

conditions in the profiles of the source and destination devices are observation conditions since Myers teaches the profiles includes information for correcting the differences between the source and destination devices.

Claims 1, 10 are method claims of apparatus claim 8. Claims 1, 10 are rejected for the same rationales set forth for claim 8 above.

Concerning claims 2-7, Myers et al further teaches that the color image signal is the color image signal which does not depend on a device and accords to the input-side condition (Abstract; col. 5, line 65 – col. 6, line 53), (claim 2); the color image signal is represented by an RGB color space according to a standard white point of the input-side light (col. 6, lines 35-38; col. 7, lines 1-14; col. 8, lines 1-29; col. 12, lines 40-45), (claim 3); the color image signal represents the achromatic color wherein the color image signal generated by the correction is an achromatic color signal under a standard white point of output side light (col. 8, lines 14-29; col. 11, lines 62–67), (claim 4); the conversion (15, Fig.1; 32, Fig.2) from a device-dependent color image signal into a device-independent color image signal on the basis of the input profile wherein it is set whether or not the controlling of the correction according to the judged result is to be performed, on the basis of information in the input profile (col. 6, lines 29-53), (claim 5); the correction is set based on a user's manual instruction (in the profiles) (claim 6); the corrected color image signal is converted into a color image signal depending on an output device on the basis of an output profile (col. 6, lines 29-67; col. 8, lines 14-40), (claim 7).

Concerning claim 9, Myers discloses a recording medium (106, Fig.8) in which a computer readable program has been recorded wherein the program executing an image processing method as discussed in claim 1 above.

Concerning claims 11, 13, Myers further teaches that the color space not depending on the color device is defined by red, green and blue three color components light (col. 6, lines 35-38; col. 7, lines 1-14; col. 8, lines 1-29; col. 12, lines 40-45), (claim 11); the process to correct the color signal subjected to the correction process to represent the achromatic color (col. 8, lines 14-29; col. 11, lines 62–67), (claim 13).

Concerning claim 12, Myers further teaches that the correction process uses a color appearance model and performs correction (col. 8, lines 14-40; col. 9, lines 15-38).

Myers fails to directly teach that the correction is non-linear correction. However, Myers teaches a correction (gamut correction), in the case of out-of-gamut, to substitute coordinate S for C (304, Fig.14; col. 16, lines 33-38). That is considered as linear correction. It would have been obvious to one skilled in the art at the time the invention was made to consider the correction taught in Myers are linear and non-linear corrections since Myers teaches different corrections which can be non-linear corrections.

Concerning claim 14, Myers discloses a recording medium (106, Fig.8) in which a computer readable program has been recorded wherein the program executing an image processing method as discussed in claim 1 above. Myers further teaches a step of obtaining a conversion condition for converting the color signals into a color space not depending on a color device, on the basis or a standard white point of the color signal.

Concerning claim 15, Myers discloses an image processing method (Fig.14) which includes a first correction processes (301) to perform correction according to a condition and second correction process (304) to perform correction according to a condition, a conversion process (32) to perform conversion when a color signal representing achromatic color is input,

such that an output signal representing achromatic color is output wherein when it is instructed to perform the second correction process, there is no conversion process after that (col. 16, line 14 – col. 17, line 60).

Myers does not directly teach that the correction of the color image signal is according to an observation condition. The same discussion is repeated as in claim 8 above.

Myers fails to directly teach that the first correction process performs non-linear correction and the second correction process performs linear correction. However, Myers teaches that the first correction is for correcting anomalies in the devices as represented by tonal reproduction curves (col. 6, lines 19-27, lines 38-41). That is considered as non-linear correction. Myers further teaches the second correction (gamut correction), in the case of out-of-gamut, to substitute coordinate S for C (col. 16, lines 33-38). That is considered as linear correction. It would have been obvious to one skilled in the art at the time the invention was made to consider the correction taught in Myers are linear and non-linear corrections since Myers teaches different corrections which can be linear and non-linear corrections.

***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Hidaka (US Patent No. 6,320,980) discloses an image processing apparatus for obtaining a conversion parameter to be used for a signal conversion process wherein the signal conversion process between the body color and the light source color can be performed without being affected by any characteristic of device.

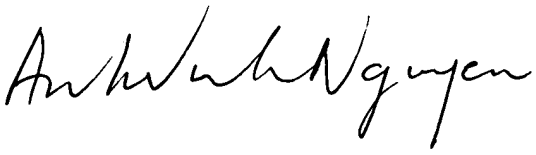
b. Edge et al (US Patent No. 6,362,808) discloses an arrangement for mapping colors between imaging systems using forward transformation profiles.

c. Ohga (US Patent No. 6,542,634) teaches an image processing apparatus and profile generating method in color matching under different reference white points.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Madeleine AV Nguyen whose telephone number is 703 305-4860. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A Williams can be reached on 703 305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Madeleine AV Nguyen
Primary Examiner
Art Unit 2626

September 30, 2004